

Ovulation Induction

If you want to have children but have an irregular menstrual cycle with few or no ovulations per year, the doctor may suggest ovulation induction. Ovulation can be induced with clomiphene citrate (Clomid) or letrozole tablets.

How Clomiphene Citrate and Letrozole work

Clomiphene citrate and letrozole stimulate the pituitary gland, a hormone-producing organ. This causes more of a certain hormone (FSH) to be produced. The hormone causes one or more follicles to develop in the ovaries.

Chance of a multiple pregnancy

Taking clomiphene citrate has an increased risk (10%) of a multiple pregnancy, as it can cause several eggs to be released. This is why you start with a low dose and increase it if necessary. Taking letrozole also has a increased risk of a multiple pregnancy, but the risk is lower than with clomiphene citrate.

Side effects of clomiphene citrate

Side effects can include temporary ovarian cysts, headache, hot flushes, visual acuity disturbances, dizziness and temporary hair loss.

Side effects of letrozole

Side effects can include mood swings, hot flushes, tiredness, headache and stomach complaints.

Letrozole was developed to treat breast cancer. It inhibits the conversion of androgens to oestrogens, which leads to an increase in the FSH hormone. Extensive research shows it to be an effective and safe means of inducing ovulation. According to the latest European guideline, letrozole is preferred for ovulation induction in women with Polycystic Ovarian Syndrome (PCOS) because it leads to more pregnancies and fewer multiple pregnancies. Letrozole is also used to induce ovulation in women without PCOS. The use of letrozole for this purpose has not yet been registered in the Netherlands. Your doctor can still prescribe letrozole by agreement with you; this is called "off-label".

Before you start

Before ovulation induction, you should take 0.4 milligrams of folic acid once a day to reduce the risk of spina bifida. You should also take 10 micrograms of vitamin D daily. It is important that you achieve and maintain a healthy weight for the treatment. This promotes the effect of the medication and improves the chance of pregnancy.

The information in this brochure is general in nature and is intended to give you an idea of the care and guidance you can expect. In your own situation, other advice or procedures may apply. This brochure is therefore only an addition to the specific (verbal) information from your specialist or practitioner.

The treatment

Taking clomiphene citrate or letrozole tablets

- Start taking clomiphene citrate or letrozole tablets on the third day of your menstrual cycle (the first day of bright red bleeding is the first day of your cycle).
- Take the tablets for five consecutive days, from cycle days 3 to 7.
- If you do not menstruate on your own, bleeding will be induced with progesterone tablets.

A pregnancy test should be performed to rule out pregnancy before taking these tablets (Primolut, norethisterone). If the pregnancy test is negative, start taking Primolut 5 mg that same day, one tablet twice a day for five days. Vaginal bleeding will begin about three days after taking the last tablets. Start taking the clomiphene citrate or letrozole tablets on the third day of the bleeding.

- You will be asked to keep a menstrual calendar (see appendix).

Tests

- An ultrasound should be performed between cycle days 10 and 12. You can make an appointment for this with the Biometrics Department: +31 40 888 95 58.
- The growth of the follicle is monitored by ultrasound. If the ultrasound shows a follicle of 17 to 20 millimetres, you will be advised to have intercourse in the following days.
- A blood test follows seven days after ovulation. The progesterone level in your blood is measured to check whether ovulation has occurred. The sonographer will tell you exactly when your blood test will take place.

Appointment

After the blood test you call +31 40 888 95 58 to make a telephone appointment with your attending physician. During the telephone appointment, the first treatment cycle will be evaluated. The following situations can occur:

- **No ovulation**

If ovulation has not occurred, the dose can be increased. The tablets are never taken for more than five days in a row.

- **Pregnancy**

About sixteen days after ovulation, you can take a pregnancy test at home if your period has not started. If you are pregnant, please contact the Biometrics Department to make a first pregnancy ultrasound appointment. Bring your menstrual calendar with you; this is important because all ovulation induction cycles are registered during the pregnancy ultrasound.

- **Ovulation but no pregnancy**

If no pregnancy has occurred, but you have ovulated successfully due to the treatment, please contact the Biometrics Department for a new five-month prescription. Take the prescribed tablets again on cycle days 3 to 7. No ultrasounds will be performed during the second treatment cycle unless otherwise indicated by your attending physician.

If no pregnancy has developed after six cycles of ovulation induction with clomiphene citrate or letrozole, but ovulation did occur, we advise you to make an appointment with your attending physician to discuss the follow-up procedure. Bring your menstrual calendar with you.

Contact your doctor if your cycle is longer than 35 days despite the use of clomiphene citrate or letrozole.

Questions

If you have any questions after reading this leaflet, call the Biometrics Department on +31 40 888 9558.

Appendix: menstrual fertility calendar

Check the box on the days that you menstruate.

Datum	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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